

## **CLAIMS**

1. In a self-erecting, inflatable thermal blanket for covering and bathing a person in a thermally-controlled inflating medium, the improvement comprising:

a flexible base sheet having a head end, a foot end, two edges, and a plurality of apertures;

an overlaying flexible material sheet attached to a first surface of said base sheet by a plurality of discontinuous seams which form said overlaying material sheet into a plurality of communicating, inflatable chambers, said apertures opening through said base sheet into said chambers;

a continuous seam between said overlaying material sheet and said base sheet near said head end which closes ends of said inflatable chambers;

a non-inflatable section of said thermal blanket extending substantially between said continuous seam and said head end and including an end portion of said flexible sheet; and

said thermal blanket being sized to extend from a patient's pelvic and groin area to the patient's feet.

2. The improvement of claim 1 further including a non-inflatable foot drape.

3. The improvement of claim 1 further including an adhesive strip at said head end to adhere said head end to a patient and prevent migration of air towards a care site.

2           4. In a self-erecting, inflatable thermal blanket  
for covering and bathing a person in a thermally-controlled  
inflating medium, the improvement comprising:

4           a flexible base sheet having a head end, a foot  
end, two edges, and a plurality of apertures;

6           an overlaying flexible material sheet attached to  
a first surface of said base sheet by a plurality of  
8 discontinuous seams which form said overlaying  
material sheet into a plurality of communicating,  
0 inflatable chambers, said apertures opening through  
said base sheet into said chambers;

.2           a continuous seam between said overlaying  
.4 material sheet and said base sheet near said head end  
which closes ends of said inflatable chambers;

.6           a non-inflatable section of said thermal blanket  
extending substantially between said continuous seam  
and said head end and including an end portion of  
8 said flexible sheet; and

0           said thermal blanket being sized to extend from a  
patient's neck to the patient's upper torso and to  
cover the patient's arms and shoulders.

2           5. The improvement of claim 4 further including a  
flat uninflatable section at said foot end.

2           6. The improvement of claim 4 further including an  
adhesive strip at said foot end to adhere said foot end to  
a patient and prevent migration of air towards a care site.

2           7. The improvement of claim 4 further including a  
head drape at said head end to drape over a patient's head  
and a vent for directing heated air under said head drape.

2           8. An inflatable thermal blanket for convectively  
controlling the temperature of a human body, comprising:

4                 a self-erecting inflatable covering with a head  
end, a foot end, two edges, and an undersurface;

6                 an inflating inlet for admitting a  
thermally-controlled inflating medium into said  
covering;

8                 an array of apertures in said undersurface for  
exhausting a thermally controlled inflating medium  
from said covering to said undersurface;

10                 means in said inflatable covering for equalizing  
the temperature of a thermally controlled inflating  
medium in said inflatable covering by circulating said  
inflating medium toward said two edges;

12                 an uninflatable extension in said inflatable  
covering at said head end; and

14                 said thermal blanket being sized to extend  
from a patient's pelvic and groin area to the  
patient's feet.

16           9. The thermal blanket of claim 8 further including  
a non-inflatable foot drape.

18           10. The thermal blanket of claim 8 further including  
an adhesive strip at said head end to adhere said head end  
to a patient and prevent migration of air towards a care  
site.

11. An inflatable thermal blanket for convectively controlling the temperature of a human body, comprising:

a self-erecting inflatable covering with a head end, a foot end, two edges, and an undersurface;

an inflating inlet for admitting a thermally-controlled inflating medium into said covering;

an array of apertures in said undersurface for exhausting a thermally controlled inflating medium from said covering to said undersurface;

~~means in said inflatable covering for equalizing the temperature of a thermally controlled inflating medium in said inflatable covering by circulating said inflating medium toward said two edges;~~

an uninflatable extension in said inflatable covering at said head end; and

the said blanket being sized to extend from a patient's neck to the patient's upper torso and to cover the patient's arms and shoulders.

12. The thermal blanket of claim 11 further including a flat uninflatable section of said foot end.

13. The improvement of claim 11 further including an adhesive strip at said foot end to adhere said foot end to a patient and prevent migration of air towards a care site.

14. The improvement of claim 11 further including a head drape at said head end to drape over a patient's head and a vent for directing heated air under said head drape.

2           15. In a self-erecting, inflatable thermal blanket  
for covering and bathing a person in a thermally-controlled  
inflating medium, the improvement comprising:

4           a flexible base sheet having a head end, a foot  
end, two edges, and a plurality of apertures;

6           an overlaying flexible material sheet attached to  
8           a first surface of said base sheet by a plurality of  
0           discontinuous seams which form said overlaying  
2           material sheet into a plurality of communicating,  
4           inflatable chambers, said apertures opening through  
6           said base sheet into said chambers;

8           a continuous seam between said overlaying  
0           material sheet and said base sheet near said head end  
2           which closes ends of said inflatable chambers;

4           a non-inflatable section of said thermal  
6           blanket extending substantially between said  
8           continuous seam and said head end and including  
0           an end portion of said flexible sheet; and

2           a flexible heater hose attached to said thermal  
4           blanket to provide heated air to said inflatable  
6           chambers, said flexible heater hose including a  
8           protective sleeve slideably disposed thereon to  
0           prevent hose contact with a patient.

2           16. An inflatable thermal blanket for convectively  
4           controlling the temperature of a human body, comprising:

6           a self-erecting inflatable covering with a head  
8           end, a foot end, two edges, and an undersurface;

0           an inflating inlet for admitting a  
2           thermally-controlled inflating medium into said  
4           covering;

8                   an array of apertures in said undersurface for  
0                   exhausting a thermally controlled inflating medium  
from said covering to said undersurface;

2                   means in said inflatable covering for equalizing  
4                   the temperature of a thermally controlled inflating  
medium in said inflatable covering by circulating said  
inflating medium toward said two edges;

6                   an uninflatable extension in said inflatable  
covering at said head end; and

8                   a flexible heater hose attached to said  
0                   thermal blanket to provide heated air to said  
inflatable chambers, said flexible heater hose  
including a protective sleeve slideably disposed  
thereon to prevent hose contact with a patient.

2                   17. A method for thermally warming a selected portion  
or portions of a patient for rendering care to other  
0                   portions of the patient, comprising the steps of:

4                   selecting one or more inflatable thermal  
6                   blankets sized to cover a portion or portions of  
a patient to be thermally warmed so that care may  
be administered to other portions of the  
8                   patient, said inflatable thermal blanket(s)  
being of a type that comprise(s):

0                   a self-erecting inflatable covering with a head  
end, a foot end, two edges, and an undersurface; and

2                   an inflating inlet for admitting a  
4                   thermally-controlled inflating medium into said  
covering;

6           an array of apertures in said undersurface for  
7           exhausting a thermally controlled inflating medium  
8           from said covering to said undersurface;

9           means in said inflatable covering for equalizing  
10          the temperature of a thermally controlled inflating  
11          medium in said inflatable covering by circulating said  
12          inflating medium toward said two edges;

13          an uninflatable extension in said inflatable  
14          covering at said head end or said foot end; and

15          an adhesive strip at said head end or said foot  
16          end having an adhesive portion facing in the direction  
17          of said thermal blanket undersurface and a removable  
18          backing covering said adhesive portion;

19          said method further comprising the steps of:

20          placing the thermal blanket(s) over the  
21          portion(s) of the patient to be thermally warmed  
22          such that the adhesive portion of said  
23          blanket(s) is oriented toward a care site;

24          removing the backing from said adhesive  
25          portion and adhering the adhesive to the patient  
26          to prevent the migration of air towards a care  
27          site;

28          attaching a heating tube or tubes from a  
29          heating unit to said thermal blanket(s);

30          selecting an appropriate temperature and  
31          activating the heating unit; and

32          monitoring the patient's temperature  
33          regularly and adjusting the heating unit  
34          temperature as required by the patient's temperature.

2           18. The method of claim 17 wherein the area(s) of a  
patient to be covered include(s) the area extending from  
the patient's pelvic and groin area to the patient's feet.

2           19. The method of claim 18 wherein said thermal  
blanket extends from the patient's pelvic and groin area to  
the patient's feet and wherein the adhesive portion of said  
thermal blanket is adhered to the patient above the  
patient's pelvic and groin area.

2           20. The method of claim 19 further including the step  
of placing a protective sleeve over the heater tube  
adjacent said thermal blanket to prevent the heater tube  
from contacting the patient.

2           21. The method of claim 17 wherein the area(s) of a  
patient to be covered include(s) the area extending from  
the patient's neck area to the patient's chest and  
including the patient's arms.

2           22. The method of claim 21 wherein said thermal  
blanket extends from the patient's neck area to the  
patient's chest and also covers the patient's arms and  
wherein the adhesive portion of said thermal blanket is  
adhered to the patient's chest.

2           23. The method of claim 22 further including the step  
of adhering a head drape on or near said head end of said  
thermal blanket and draping the head drape loosely over the  
patient's head.

2           24. The method of claim 17 further including the step  
of draping a conventional blanket or blankets over said  
thermal blanket(s).

2           25. A thermal care system for thermally warming a  
patient comprising:

4                 an inflatable thermal blanket having at least one  
inflatable chamber therein and an air inlet for  
admitting air to said chamber;

6                 a heater/blower assembly providing a source of  
heated air;

8                 a heater tube extending from said heater/blower  
assembly to said thermal blanket air inlet; and

0                 a protective sleeve slideably disposed over said  
heater tube adjacent said thermal blanket air inlet to  
2                 prevent said heater tube from contacting the patient.

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